
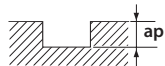



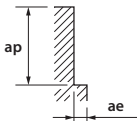
Milling | Endmills | Cutting conditions

FXS-PKE

Slotting milling

	C≤0,2%			~30 HRC		30~38 HRC		38~45 HRC SUS		45~55 HRC HRS		55~60 HRC		
	S55C・SS400・FC250 ~750 N/mm ²			SKD・SKS・SNCRM		NAK55・HPM1・SKT		SUS304・X210CR12 X40CRMV51						
Vc	80 m/min			60 m/min		50 m/min		40 m/min		30 m/min		20 m/min		
Ø	S (min ⁻¹)	F (mm/min)	S (min ⁻¹)	F (mm/min)	S (min ⁻¹)	F (mm/min)	S (min ⁻¹)	F (mm/min)	S (min ⁻¹)	F (mm/min)	S (min ⁻¹)	F (mm/min)		
3	8.900	665	6.650	595	5.900	350	3.800	90	3.150	55	2.000	30		
4	6.650	695	5.000	675	4.450	400	2.850	100	2.350	70	1.550	35		
5	5.300	715	4.000	660	3.550	360	2.250	105	1.900	70	1.250	35		
6	4.450	740	3.300	550	2.950	345	1.900	110	1.600	90	1.050	35		
8	3.300	660	2.500	500	2.200	360	1.400	115	1.200	95	795	35		
10	2.650	630	2.000	475	1.750	325	1.100	115	955	95	635	35		
12	2.200	590	1.650	440	1.450	300	955	110	800	95	530	35		
16	1.650	640	1.250	480	1.100	335	720	120	600	95	400	40		
20	1.350	535	1.000	400	875	280	570	120	480	80	320	40		
Max cutting depth									<table border="1"><tr><td>ap</td></tr><tr><td>0,05D</td></tr></table>				ap	0,05D
ap														
0,05D														
<p>1. Conditions to be used if slant is = 3 x dia. If length is 5 x dia, than reduce feed and rotation by 30 to 40% and use 1/2 of depth of passes. If length is 6 x dia, than reduce feed and rotation by 40 to 60% and use 1/4 of depth of passes.</p> <p>2. Reduce speed to avoid distortion from deep passes or low rigidity</p> <p>3. Use compressed air or a high quality coolant with a low co-efficient of smoke emission.</p>														


High speed side milling

	C≤0,2%		~30 HRC		30~38 HRC		38~45 HRC SUS		45~55 HRC HRS		55~60 HRC									
	S55C • S5400 • FC250 ~750 N/mm²		SKD • SKS • SNCM		NAK55 • HPM1 • SKT		SUS304 • X210CR12 X40CRMOV51													
Vc	200 m/min		200 m/min		200 m/min		150 m/min		150 m/min		100 m/min									
Ø	S (min ⁻¹)	F (mm/min)	S (min ⁻¹)	F (mm/min)	S (min ⁻¹)	F (mm/min)	S (min ⁻¹)	F (mm/min)	S (min ⁻¹)	F (mm/min)	S (min ⁻¹)	F (mm/min)								
6	10.600	2.650	10.600	2.200	10.600	1.350	8.000	1.000	8.000	800	5.300	530								
8	8.000	2.650	8.000	2.200	8.000	1.350	6.000	1.000	6.000	800	4.000	530								
10	6.400	2.100	6.400	1.700	6.400	1.050	4.800	800	4.800	640	3.200	420								
12	5.300	2.100	5.300	1.700	5.300	1.050	4.000	800	4.000	640	2.650	420								
16	4.000	2.150	4.000	1.700	4.000	1.100	3.000	805	3.000	665	2.000	420								
20	3.200	2.100	3.200	1.700	3.200	1.100	2.400	805	2.400	665	1.600	420								
Max cutting depth	<div></div> <div><table><tr><td>ap</td><td>ae</td></tr><tr><td>1D</td><td>0,1D</td></tr></table></div> <div><table><tr><td>ap</td><td>ae</td></tr><tr><td>1,D</td><td>0,02D</td></tr></table></div>											ap	ae	1D	0,1D	ap	ae	1,D	0,02D	
ap	ae																			
1D	0,1D																			
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<div>1. Conditions to be used if slant is = 3 x dia. If length is 5 x dia, than reduce feed and rotation by 30 to 40% and use 1/2 of depth of passes. If length is 6 x dia, than reduce feed and rotation by 40 to 60% and use 1/4 of depth of passes.</div> <div>2. Reduce speed to avoid distortion from deep passes or low rigidity</div> <div>3. Use compressed air or a high quality coolant with a low co-efficient of smoke emission.</div>																				

High speed contouring

Vc	C≤0,2%		~30 HRC		30~38 HRC		38~45 HRC		45~55 HRC		55~60 HRC	
	S55C・S5400・FC250 ~750 N/mm²		SKD・SKS・SNCM		NAK55・HPM1・SKT		SUS304・X210CR12 X40CRMOV51		HRS			
	200 m/min		200 m/min		200 m/min		150 m/min		150 m/min		100 m/min	
Ø	S (min⁻¹)	F (mm/min)	S (min⁻¹)	F (mm/min)	S (min⁻¹)	F (mm/min)	S (min⁻¹)	F (mm/min)	S (min⁻¹)	F (mm/min)	S (min⁻¹)	F (mm/min)
6	10.600	1.600	10.600	1.300	10.600	1.000	8.000	1.000	8.000	500	5.300	310
8	8.000	1.600	8.000	1.300	8.000	1.000	6.000	1.000	6.000	500	4.000	310
10	6.400	1.300	6.400	1.000	6.400	800	4.800	700	4.800	400	3.200	250
12	5.300	1.300	5.300	1.000	5.300	800	4.000	700	4.000	400	2.650	250
16	4.000	1.300	4.000	1.050	4.000	795	3.000	690	3.000	405	2.000	255
20	3.200	1.050	3.200	1.050	3.200	795	2.400	580	2.400	405	1.600	255

Max
cutting
depth



ap	ae
0,1D	0,3~0,5D

ap	ae
0,05D	0,2~0,3D

ap	ae
0,02D	0,2~0,3D

1. Conditions to be used if slant is = 3 x dia. If length is 5 x dia, than reduce feed and rotation by 30 to 40% and use 1/2 of depth of passes. If length is 6 x dia, than reduce feed and rotation by 40 to 60% and use 1/4 of depth of passes.

2. Reduce speed to avoid distortion from deep passes or low rigidity

3. Use compressed air or a high quality coolant with a low co-efficient of smoke emission.